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Search Terms

(4) ("5591228") or ("4994071").EN.  
(3231) ((623/1.13,1.27,23.7,23.71) or (606/195,198,194,191)).CCL8.  
(260) (coated or coating) with wire and (((623/1.13,1.27,23.7,23.71) or (606/195,198,194,191)...  
(69) (coated or coating) with wire same stent and (((623/1.13,1.27,23.7,23.71) or (606/195,19...  
(95519) inoueS.in.  
(134716) inoue, kanjiS.in.  
(15588) inoue-kS.in.  
(176) inoue-kanjiS.in.  
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EAST search 9/26/02

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US-PAT-NO: 5628788

DOCUMENT-IDENTIFIER: US 5628788 A

TITLE: Self-expanding endoluminal stent-graft

----- KWIC -----

Detailed Description Text - DETX (9):

The self-expanding endoluminal stent -graft 20 shown in FIG. 7 includes a textile tube 22 which is knitted using seventy denier, thirty-four filament, false twist PET fibers having a melting point of approximately 240.degree. C.

The knit construction is a double tricot design having twenty-seven courses per inch, six needles per side. The tube 22 is expanded over a twelve millimeter

mandril from a resting diameter of approximately four millimeters and coated with a thin fibrous (porous) layer of polycarbonate urethane 28 having a melting point of approximately 160.degree. C. A Didcott-type stent 10 is provided. The stent 10 has twenty-four wire filaments, each being approximately 0.006 inches in diameter, which are braided one-over-one at an approximately 45.degree. angle relative to the axis of the stent. The

wires of stent 10 are spray coated with a thin layer of polycarbonate urethane 28, having a melting point of approximately 160.degree. C., dissolved in dimethylacetamide solvent so that the polycarbonate urethane is approximately

three and ten percent by weight. Both the stent 10 and the tube 22 are dried.

The stent 10 is placed over the tube 22 and both are heated to approximately

160.degree. C. such that the polycarbonate urethane 28 melts and bonds the stent 10 to the tube 22. The demolded stent -graft 20 can be pulled down from twelve millimeters in diameter to four millimeters in diameter without delamination of the tube 22 from the stent 10.

Claims Text - CLTX (19):

said self-expanding wire stent is coated with a fibrous layer of polycarbonate

urethane having a melting point lower than the melting point of said tubular

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US-PAT-NO: 5674242

DOCUMENT-IDENTIFIER: US 5674242 A

TITLE: Endoprosthetic device with therapeutic compound

----- KWIC -----

## Brief Summary Text - BSTX (6):

It is often desirable to administer a drug at the target site, where the stent also serves as a framework for carrying the therapeutic compound. Numerous approaches have been proposed and, for metal stents, one proposed approach is to directly coat the stent wires with a polymer containing the therapeutic agent. This approach suffers from several problems including cracking of the polymer as the stent is expanded during deployment. Because the stent wires have a limited surface area, and because the overall polymer coating should be thin so that it will not significantly increase the profile of the stent, the amount of polymer that can be applied is limited. Hence, another disadvantage with polymer-coated stents for drug delivery is a limited capacity for carrying a drug.

## Current US Original Classification - CCOR (1):

606/199

## Current US Cross Reference Classification - CCXR (1):

606/199

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US-PAT-NO: 4886062

DOCUMENT-IDENTIFIER: US 4886062 A

TITLE: Intravascular radially expandable stent and method of implant

----- KWIC -----

Detailed Description Text - DETX (7):

To test the viability of this novel principle of stent construction a polyester-coated copper wire of 0.008 dia. was preformed into a zig-zag pattern 3 as shown in FIG. 1 to form a band 3a. This band was subsequently wound into a tubular shape with ends curled into tight loops 2a to prevent sharp ends of wire 2 from perforating balloon 5. The tubular stent was placed over a 3.5 mm PTCA 20/3.5T balloon made by SciMed and fitted tightly over said balloon. The balloon and stent assembly was fed through an 8F guiding catheter into a silastic thin-wall tubing approx 3 mm inside diameter and balloon was inflated with a standard 10 cc syringe using plain water. The expansion of the stent was observed and documented on video. Several subsequent tests of similar nature also using larger balloons typically MeadoxSurgimed A/S Cat. No. 700720 10 mm dia. and Medi.tech balloon 12 mm dia. were used with a stent made of polyester-coated copper wire 0.014" dia. All tests showed near-perfect expansion and "bench-type" implantations. Further experiments showed that multiple stents can be used in tandem. In fact, a typical balloon and stent assembly can be fed right through a previously implanted and expanded stent and be implanted downstream ahead of the previously implanted stent. A distinct advantage in real life situations.

Current US Original Classification - CCOR (1):

606/194

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37	US 5837008	USP	1998	1117		
38	US 5855598	USP	1999	0105	21	

US-PAT-NO: 5383928

DOCUMENT-IDENTIFIER: US 5383928 A

TITLE: Stent sheath for local drug delivery

----- KWIC -----

## Brief Summary Text - BSTX (13):

The concept of coating a stent with a polymer has been described several years ago and is discussed in the literature regularly. In the past, local delivery of drug(s) using stents has centered around two concepts: (1) directly coating the stent wires with a drug or a drug-polymer combination (Bailey et al., Circulation 82:III-541 (1990); Cavendar et al., Circulation 82:III-541 (1990)) and (2) incorporating a drug into a stent that was constructed not of metal but of a biodegradable polymer (Murphy et al., J. Invasive Cardiol. 3:144-148 (1991)). Most investigators and stent companies have focused their efforts on directly coating the metal stent wires with a polymer. This polymer is usually placed directly on the stent (e.g., by dipping the stent in soluble polymer) or is covalently bound to the metal. The polymer is bonded to or contains an anticoagulant compound. Most coated stents currently under development use heparin as their active agent. One of the more effective polymer coatings for stents is Biogold (van der Giessen et al., Circulation 82: III-542 (1990)).

## Brief Summary Text - BSTX (15):

Because of the inadequacies associated with polymer coatings directly applied onto the stent wires, there remains a great need to effectively prevent thrombosis at the stent site. The present invention satisfies this need by providing a separate sleeve to encompass the stent and serve as a local drug delivery device to prevent thrombosis.

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US-PAT-NO: 5342387

DOCUMENT-IDENTIFIER: US 5342387 A

TITLE: Artificial support for a blood vessel

----- KWIC -----

Claims Text - CLTX (46):

21. The stent of claim 18 wherein said wire is coated with a biocompatible gelatin compound.

Current US Original Classification - CCOR (1):

5067198

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US-PAT-NO: 5562641

DOCUMENT-IDENTIFIER: US 5562641 A

TITLE: Two way shape memory alloy medical stent

----- KWIC -----

Detailed Description Text - DETX (26):

In order to reduce friction forces, it may at times be desired to coat the band or the wire constituting the stent with a hydrophilic coating which reduces its friction coefficient.

Current US Cross Reference Classification - CCXR (2):

G06F196



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US-PAT-NO: 5700285

DOCUMENT-IDENTIFIER: US 5700285 A

TITLE: Intraluminal stent graft

----- KWIC -----

Detailed Description Text - DETX (21):

A Nitinol wire stent of the same type used for Example 1 was provided with a

luminal covering of a porous expanded PTFE film having a microstructure of biaxially-oriented fibrils as shown by FIG. 3A. This was accomplished by wrapping a hollow tubular mandrel of non-porous PTFE with a layer of porous expanded PTFE film having a continuous (non-porous) coating of FEP with the FEP-coated side of the film facing outwardly away from the mandrel surface. This film was about 0.02 mm thick; the porous expanded PTFE had a microstructure of uniaxially-oriented fibrils with the fibrils oriented circumferentially about the exterior surface of the mandrel. The Nitinol

stent

was carefully fitted over the film-wrapped portion of the mandrel. The mandrel

assembly was then placed into an oven set at 360.degree. C. for four minutes.

After removal from the oven and subsequent cooling, the mandrel was removed from the stent leaving the wrapped film adhered to the luminal surface of the

stent. This film was then peeled from the luminal stent surface, leaving the

FEP-coating and some small shreds of residual porous expanded PTFE adhered to

the luminal surface of the stent wires. By removing the film and leaving the

FEP adhesive on the luminal stent surface, the film served only as a release

substrate for the application of the adhesive to the stent surface.

Detailed Description Text - DETX (23):

The film was overlapped adequately to form a 2 mm wide, longitudinally oriented

seamline 45 parallel to the longitudinal axis of the mandrel. A sheet of polyamide film was temporarily placed over the surface of the seam and then contacted with the surface of a hand-held iron set at 400 degree C. to

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Fig. 4

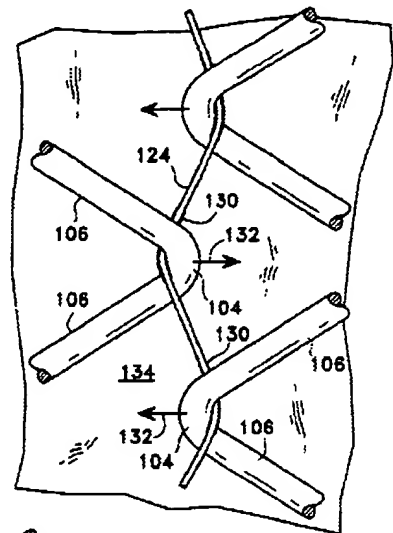


Fig. 5

